

**ABSTRACT**

An apparatus for wireless communication, including a plurality of slave transceivers spatially separated from one another within an enclosed region. Each of the slave transceivers is adapted to receive a reverse radio frequency (RF) signal generated by a mobile transceiver within the region. Furthermore, each slave transceiver processes the RF signal based on at least one adjustable operational parameter and generates a reverse slave signal. Each of the slave transceivers includes an associated slave central processing unit (slave-CPU) adapted to control at least one adjustable operational parameter of the slave transceiver. Control is provided in response to at least one characteristic of the reverse RF signal. The apparatus also includes a master transceiver. The master transceiver is coupled to receive and process the reverse slave signals from the plurality of slave transceivers. Corresponding reverse master signals are then generated by the slave transceiver. The slave transceiver conveys the reverse master signals to at least one base station transceiver subsystems (BTSs) external to the region. The master transceiver is adapted to convey setting signals to the plurality of slave transceivers so as to set the adjustable operational parameters thereof.